

U.S. Department of Commerce, Patent and Trademark Office		Docket No.	Serial No.
(PTO Form 1449 modified)		APPM/8539	10/683937 Unassigned
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant Kim, et al.	Confirmation No. Unknown
(Use several sheets if necessary)		Filing Date	Group
Examiner Unknown		Herewith	Unknown 282~

## U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
MT	A1	6,544,900	04/08/2003	Raaijmakers, et al.	H01L	2131	11/14/2001
	A2	6,458,718	10/01/2002	Todd	438	778	04/24/2001
	A3	6,410,463	06/25/2002	Matsuki	438	790	10/18/2000
	A4	6,383,955	05/07/2002	Matsuki, et al.	438	790	06/07/1999
	A5	6,358,829	03/19/2002	Yoon, et al.	438	597	09/16/1999
	A6	6,352,945	03/05/2002	Matsuki, et al.	438	778	06/07/1999
	A7	6,348,420	02/19/2002	Raaijmakers, et al.	438	769	12/23/1999
	A8	6,284,686	09/04/2001	Marlor	501	64	12/22/1999
	A9	6,232,196	05/15/2001	Raaijmakers, et al.	438	386	03/05/1999
	A10	6,025,627	02/15/2000	Forbes, et al.	257	321	05/29/1998
	A11	5,807,792	09/15/1998	Ilg, et al.	438	758	12/18/1996
MT	A12	5,796,116	08/18/1998	Nakata, et al.	257	66	07/25/1995

## Foreign Patent Documents

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
MT	B1	1 150 345	10/31/2001	EP	H01L	21/316	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B2	2001-189312	05/02/2001	JP	C30B	25/02	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	B3	63062313	03/18/1988	JP (abstract)	H01L	21/203	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MT	B4	58098917	06/13/1983	JP	H01L	21/205	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
MT	C1	Lee, et al., <i>Cyclic technique for the enhancement of highly oriented diamond film growth</i> , Elsevier Science S.A., Thin Solid Films (1997) 264-268.
MT	C2	Choi, et al., <i>Stability of TiB<sub>2</sub> as a Diffusion Barrier on Silicon</i> . Electrochemical Society Vol. 138 No. 10 October 1991.

Examiner Michael Trill Date Considered 6/13/85

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.



DDJ-10-10-2003

(213)

Sheet 2 of 4 sheets

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant Kim, et al.	Confirmation No. Unknown
(Use several sheets if necessary)		Filing Date	Group 2822
Examiner Unknown		Herewith	Unknown

**U.S. Patent Documents**

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
MT	A13	5,693,139	12/02/1997	Nishizawa, et al.	117	89	06/15/1993
	A14	5,674,304	10/07/1997	Fukada, et al.	65	32.4	09/23/1994
	A15	5,527,733	06/18/1996	Nishizawa, et al.	437	160	02/18/1994
	A16	5,480,818	01/02/1996	Matsumoto, et al.	437	40	02/09/1993
	A17	5,469,806	11/28/1995	Mochizuki, et al.	117	97	08/20/1993
	A18	5,374,570	12/20/1994	Nasu, et al.	437	40	08/19/1993
	A19	5,372,860	12/13/1994	Fehlner, et al.	427	578	07/06/1993
	A20	5,294,286	03/15/1994	Nishizawa, et al.	156	610	01/12/1993
MT	A21	4,834,831	05/30/1989	Nishizawa, et al.	156	611	09/04/1987

**Foreign Patent Documents**

*Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
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MT	B5	62-171999	07/28/1987	JP	C30B	29/40	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B6	2001-189312	07/10/2001	JP	H01L	21/316	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	B7	2001-111000	04/20/2001	JP	H01L	27/105	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MT	B8	5102189	04/23/1993	JP	H01L	21/336	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**OTHER ART**

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
MT	C3	Paranjpe, et al., <i>Atomic Layer Deposition of AlO<sub>x</sub> for Thin Film Head Gap Applications</i> , ECS, Journal of the Electrochemical Society, 148 (9) G465-G471 (2001).
	C4	

Examiner Michael Turin Date Considered 6/13/05

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IDS-10-10-2003

3/3

Sheet 3 of 4 sheets

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Examiner Unknown		Herewith	Unknown

## U.S. Patent Documents

*Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
MT	A22	2003/0082300	05/01/2003	Todd, et al.	427	255.27	02/11/2002
	A23	2003/0036268	02/20/2003	Brabant, et al.	C30B	1/00	05/29/2002
	A24	2003/0022528	01/30/2003	Todd	438	933	02/11/2002
	A25	2002/0197831	12/26/2003	Todd, et al.	438	528	02/11/2002
	A26	2002/0173130	11/21/2002	Pomereade, et al.	438	592	04/10/2002
	A27	2002/0173113	11/21/2002	Todd	438	398	02/11/2002
	A28	2002/0168868	11/14/2002	Todd	438	767	02/11/2002
	A29	2002/0093042	07/18/2002	Oh, et al.	257	303	11/13/2001
	A29	2001/0055672	12/27/2001	Todd	428	212	02/07/2001
	A30	2001/0046567	11/29/2001	Matsuki, et al.	427	578	04/06/2001
	A31	2001/0024871	09/27/2001	Yagi	438	604	01/31/2001
MT	A32	2001/0020712	09/13/2001	Raaijmakers, et al.	257	301	01/18/2001

## Foreign Patent Documents

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MT	B5	62-171999	07/28/1987	JP	C30B	29/40	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MT	B6	2001-189312	07/10/2001	JP	H01L	21/316	<input type="checkbox"/>	<input checked="" type="checkbox"/>
MT	B7	2001-111000	04/20/2001	JP	H01L	27/105	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## OTHER ART

*Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
	C3	
	C4	
Examiner	Michael Trish	Date Considered 6/13/05

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IDS 1-24-2005

PTO/SB/08b(08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO

**SUPPLEMENTAL  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

1

**Complete if Known**

Application Number

10/683,937

Filing Date

October 10, 2003

First Named Inventor

Kim et al.

Art Unit

2812

Examiner Name

Unassigned

Attorney Docket Number

AMAT/8539/TSG/EPI/RKK

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
MT	C1	Article by Uchino et al., entitled "A Raised Source/Drain Technology Using In-situ P-doped SiGe and B-doped Si for 0.1-µm CMOS ULSIs", IEDM, December 1997, Technical Digest, pgs. 479-482.	
MT	C2	Article by Sedgwick et al., entitled "Selective SiGe and heavily as doped Si deposited at low temperature by atmospheric pressure chemical vapor deposition", Journal of Vacuum Science & Technology, May/June 1993, No. 3, pgs. 1124-1128.	
MT	C3	Article by Kamins et al., entitled "Kinetics of Selective epitaxial deposition Si <sub>1-x</sub> Ge <sub>x</sub> ", American Institute of Physics, 1992/August, No. 6, pgs. 669-671	
MT	C4	Article by Menon et al., entitled "Loading effect in SiGe layers grown by dichlorosilane-and silane-based epitaxy", American Institute of Physics, 2001/November, Volume 90, No. 9, pgs. 4805-4809.	
	C5		
	C6		
	C7		
	C8		
	C9		
	C10		
	C11		
	C12		
	C13		

Examiner Signature	Michael Trin	Date Considered	8/13/05
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## ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

<b>Title of Invention</b>	Method of Selective Deposition of Heavily Doped Epitaxial SiGe
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Application Number : 10/683937  
 Confirmation Number: 2191  
 First Named Applicant: Yihwan Kim  
 Attorney Docket Number: AMAT8539TSGEPIRKK  
 Art Unit: 2812  
 Examiner:  
 Search string: ( 6559520 or 6335280 or 20030189208 ).pn



**Certification:** This Information Disclosure Statement was submitted under the following conditions, which satisfies the requirement under 37 CFR 1.97(e). The filer certified:

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement.

**US Patent Documents**

**Note:** Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
mt	1	6559520	2003-05-06	Matsuki et al.			
mt	2	6335280	2002-01-01	van der Jeugd			

**US Published Applications**

**Note:** Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
mt	1	20030189208	2003-10-09	Law et al.			

**Signature**

Examiner Name	Date
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Michael T. ...

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Substitute for form 1449A/PTO  <b>SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		Application Number	10/683,937
		Filing Date	October 10, 2003
		First Named Inventor	Kim, et al.
		Group Art Unit	2812
		Examiner Name	Michael M. Trinh
		Attorney Docket Number	AMAT/8539/TSG/EPI/RKK
Sheet 1	of 2	Submission Date	April 21, 2005

## U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
MT APR 28 2005 PATENT & TRADEMARK OFFICE	A1	US-6559520 B2	05/06/2003	MATSUKI, ET AL.	
	A2	US-6451119 B2	09/17/2002	SNEH, ET AL.	
	A3	US-6335280 B1	01/01/2002	VAN DER JEUGD	
	A4	US-6291319 B1	09/18/2001	YU, ET AL.	
	A5	US-20030189208 A1	10/09/2003	LAW, ET AL.	
	A6	US-20020145168 A1	10/10/2002	BOJARCUK, JR., ET AL.	

## FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
MT	B1	WO 02/097864 A2	12/05/2002	ASM AMERICA, INC.		
	B2	WO 02/080244 A2	10/10/2002	ASM AMERICA, INC.		
	B3	WO 02/065525 A1	08/22/2002	ASM AMERICA, INC.		
	B4	WO 02/065517 A2	08/22/2002	ASM AMERICA, INC.		
	B5	WO 02/065516 A2	08/22/2002	ASM AMERICA, INC.		
	B6	WO 02/065508 A2	08/22/2002	ASM AMERICA, INC.		
	B7	WO 02/064853 A2	08/22/2002	ASM AMERICA, INC.		
	B8	WO 01/41544 A2	06/14/2001	ASM AMERICA, INC.		
	B9	WO 98/20524	05/14/1998	PACIFIC SOLAR PTY. LIMITED		
	B10	JP 05-047665	02/26/1993	FUJITSU LTD		
	B11	JP 03-286522	12/17/1991	NEC CORP		
	B12	JP 02-172895	07/04/1990	NEC CORP		
	B13	JP 01-270593	10/27/1989	FUJITSU LTD		

## NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
MT	C1	International Search Report mailed February 22, 2005 for PCT/US2004/030872 (AMAT/8539-PCT)	

Examiner

Michael Trinh

Date Considered

6/13/05

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MT	C2	Jeong, et al. "Growth and Characterization of Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> ) Thin Films by Plasma-Assisted Atomic Layer Controlled Deposition," J. Korean Inst. Met. Mater., Vol. 38, No. 10, Oct. 2000 PP. 1395-1399	
MT	C3	Jeong, et al. "Plasma-assisted Atomic Layer Growth of High-Quality Aluminum Oxide Thin Films," Jpn. J. Appl. Phys. 1, Regul. Pap. Short Notes, Vol. 40, No. 1, Jan 2001 PP. 285-289	

Examiner

Michael Trinh

Date Considered

6/13/05

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